

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A cardiac rhythm monitoring or management system, including:
a sensing circuit configured for sensing an intrinsic electrical heart signal, the sensing circuit having a frequency response that is time-dependent during a first time period initiated by at least one of a detected pacing therapy event or a detected evoked or detected intrinsic heart chamber contraction event of the heart signal, the sensing circuit configured to trigger a frequency response that is temporarily less sensitive to detecting evoked and intrinsic events of the heart signal followed by gradual adjustment of a frequency bandwidth of the frequency response as a function of an elapsed time relative to the event such that the frequency response gradually becomes more sensitive to detecting evoked and intrinsic heart chamber contraction events of the heart signal, the elapsed time measured or received by the sensing circuit during the same cardiac cycle as the event, to restore the frequency response within a time period of less than or equal to 500 milliseconds such that the frequency response is restored during the same cardiac cycle as the event.
2. (Previously Presented) The system of claim 1, in which the sensing circuit is configured to trigger the adjustment in response to the detected evoked heart chamber contraction event and also in response to the detected intrinsic heart chamber contraction event.
3. (Previously Presented) The system of claim 1, in which the sensing circuit is configured such that the frequency response includes a bandwidth that is time-dependent for the first time period, and the first time period is initiated by at least one of the detected pacing therapy event and detected evoked and detected intrinsic QRS complexes of the heart chamber contraction of the heart signal.
4. (Previously Presented) The system of claim 3, in which the sensing circuit is configured such that the bandwidth decreases to a second bandwidth value, from a first bandwidth value, upon occurrence of the event.

5. (Previously Presented) The system of claim 4, in which the sensing circuit is configured such that the bandwidth increases from the second bandwidth value toward the first bandwidth value during the first time period.
6. (Previously Presented) The system of claim 5, in which the sensing circuit is configured such that the bandwidth includes a passband.
7. (Previously Presented) The system of claim 6, in which the sensing circuit is configured such that an attenuation of a T-wave of the heart signal during the first time period is greater than or equal to the attenuation of the T-wave immediately after expiration of the first time period.
8. (Previously Presented) The system of claim 7, in which the sensing circuit is configured such that the first time period is greater than or equal to 250 milliseconds.
9. (Previously Presented) The system of claim 8, in which the sensing circuit is configured such that the first time period is approximately between 250 milliseconds and 500 milliseconds.
10. (Previously Presented) The system of claim 8, in which the sensing circuit is configured such that the first time period is approximately 500 milliseconds.
11. (Original) The system of claim 10, in which the sensing circuit includes an automatic gain control (AGC) circuit.
12. (Previously Presented) The system of claim 1, in which the sensing circuit is configured such that a highpass pole frequency of the frequency response is time-dependent for the first time period, and the first time period is initiated by at least one of the detected pacing therapy event and detected evoked and detected intrinsic heart chamber contraction events of the heart signal.
13. (Previously Presented) The system of claim 12, in which the sensing circuit is configured such that the first time period is initiated by at least one of the detected pacing therapy event and

detected evoked and detected intrinsic QRS complexes of the heart chamber contraction, and the highpass pole frequency increases to a second frequency value, from a steady-state first frequency value, in response to detection of the detected pacing therapy event or a QRS complex of the heart chamber contraction.

14. (Previously Presented) The system of claim **13**, in which the sensing circuit is configured such that the highpass pole frequency gradually decreases from the second frequency value toward the first frequency value during the first time period.

15. (Previously Presented) The system of claim **1**, in which the sensing circuit is configured such that a lowpass pole frequency is time-dependent for the first time period, and the first time period is initiated by at least one of the detected pacing therapy event and detected evoked and detected intrinsic heart chamber contraction events of the heart signal.

16. (Previously Presented) The system of claim **15**, in which the sensing circuit is configured such that the first time period is initiated by at least one of the detected pacing therapy event and detected evoked and detected intrinsic QRS complexes of the heart chamber contraction, and the lowpass pole frequency decreases to a second frequency value, from a first frequency value during the first time period.

17. (Previously Presented) The system of claim **16**, in which the sensing circuit is configured such that the first time period is initiated by at least one of the detected pacing therapy event and detected evoked and detected intrinsic QRS complexes of the heart chamber contraction, and the lowpass pole frequency gradually increases from the second frequency value toward the first frequency value during the first time period.

18. (Previously Presented) The system of claim **1**, in which the sensing circuit includes a gain that is time-dependent during a second time period initiated by at least one of the pacing therapy event or the evoked or intrinsic event of the heart signal.

19. (Previously Presented) The system of claim **18**, in which the sensing circuit is configured such that the second time period is initiated by at least one of the detected pacing therapy event and the detected evoked and detected intrinsic heart chamber contraction event of the heart signal.

20. (Previously Presented) The system of claim **19**, in which the sensing circuit is configured such that the gain decreases to a second gain value, from a first gain value, during the second time period.

21. (Previously Presented) The system of claim **20**, in which the sensing circuit is configured such that the gain gradually increases, from the second gain value toward the first gain value during the second time period.

22. (Currently Amended) A cardiac rhythm management system, including:
an electronics unit including:
a therapy circuit;
a sensing circuit configured for sensing an intrinsic heart signal of a heart; and
a bandpass filter, included in the sensing circuit, the filter having a frequency response that is time-dependent during a first time period initiated by one of a detected pacing therapy event or a detected evoked or detected intrinsic heart chamber contraction event of the heart signal and the sensing circuit configured to trigger a frequency response that is temporarily less sensitive to detecting evoked and intrinsic events of the heart signal followed by gradual adjustment of a frequency bandwidth of the frequency response as a function of an elapsed time relative to the event such that the frequency response gradually becomes more sensitive to detecting evoked and intrinsic heart chamber contraction events of the heart signal, the elapsed time measured or received by the sensing circuit during the same cardiac cycle as the event, to restore the frequency response within a time period of less than or equal to 500 milliseconds such that

the frequency response is restored during the same cardiac cycle as the event;

and

a leadwire, coupled to the electronics unit and configured to be coupled to a portion of the heart; and

a programmer, remote from and communicatively coupled to the electronics unit, the programmer including a parameter controlling one of: (a) the frequency response of the bandpass filter, and (b) the duration of the first time period.

23. (Previously Presented) The system of claim 22, in which the sensing circuit further includes a gain that decreases from a first gain value to a second gain value during a second time period initiated by one of the detected pacing therapy event or the detected evoked or detected intrinsic event of the heart signal.

24. (Withdrawn) The method of claim 37, including:

receiving, from a heart, a heart signal that includes an intrinsic event;

filtering the heart signal to attenuate frequencies outside a frequency range having a first frequency range value;

detecting the event; and

adjusting the frequency range from the first frequency range value to a second frequency range value in response to the detection of the event.

25. (Withdrawn) The method of claim 24, further including adjusting the frequency range from the second frequency range value toward the first frequency range value during a first time period from the event.

26. (Withdrawn) The method of claim 25, further including;

providing a stimulation to the heart; and

adjusting the frequency range from the first frequency range value to the second frequency range value in response to the providing the stimulation.

27. (Withdrawn) The method of claim **26**, further including adjusting the frequency range from the second frequency range value toward the first frequency range value during a first time period from the stimulation.

28. (Withdrawn) The method of claim **24**, further including:
amplifying the heart signal by a gain; and
reducing the gain from a first gain value to a second gain value in response to the detection of the event.

29. (Withdrawn) The method of claim **37**, including:
receiving, from a heart, a heart signal that includes an intrinsic event;
providing, to the heart, a stimulation for obtaining an evoked event;
filtering the heart signal to attenuate frequencies outside a frequency range having a first frequency range value;
detecting the intrinsic event;
narrowing the frequency range from the first frequency range value to a second frequency range value in response to (a) the detection of the intrinsic event, and (b) the providing the stimulation; and
widening the frequency range from the second frequency range value such that the frequency range approaches the first frequency range value after a first time period from (a) the detection of the intrinsic event and (b) the providing the stimulation.

30. (Withdrawn) The method of claim **29**, in which:
detecting the intrinsic event includes detecting a QRS complex; and
filtering the heart signal includes filtering the heart signal to attenuate frequencies outside the frequency range having the first frequency range value that includes frequency components of the QRS complex.

31. (Withdrawn) The method of claim **30**, in which narrowing the frequency range includes attenuating a T-wave.

32. (Withdrawn) The method of claim **31**, in which filtering the heart signal includes bandpass filtering the heart signal.

33. (Withdrawn) The method of claim **29**, further including:
amplifying the heart signal by a gain; and
reducing the gain from a first gain value to a second gain value in response to (a) the detection of the intrinsic event and (b) the providing the stimulation.

34. (Withdrawn) The method of claim **33**, further including increasing the gain from the second gain value toward the first gain value during a second time period following one of (a) the detection of the intrinsic event and (b) the providing the stimulation.

35. (Withdrawn) The method of claim **34**, in which the first and second time periods are approximately equal.

36. (Withdrawn) The method of claim **34**, in which the first and second time periods are different.

37. (Withdrawn) A method comprising:
sensing a heart signal using a sensing circuit of a cardiac rhythm management system;
detecting a therapy event or an evoked or intrinsic event of the heart signal; and
adjusting a frequency response of the sensing to be time-dependent during a first time period initiated by one of the therapy event or the evoked or intrinsic event of the heart signal.

38. (Withdrawn) An apparatus comprising:
means for sensing a heart signal using a sensing circuit of a cardiac rhythm management system;
means for detecting a therapy event or an evoked or intrinsic event of the heart signal;
and

means for adjusting a frequency response of the sensing to be time-dependent during a first time period initiated by one of the therapy event or the evoked or [[the]] intrinsic event of the heart signal.

39. (Previously Presented) The system of claim **1**, wherein the gradual adjustment of the frequency bandwidth comprises a substantially continuous function of the elapsed time.

40. (Previously Presented) The system of claim **1**, wherein the first time period is initiated by the detected pacing therapy event.

41. (Previously Presented) The system of claim **1**, wherein the first time period is initiated by the detected evoked heart chamber contraction event of the heart signal.

42. (Previously Presented) The system of claim **1**, wherein the first time period is initiated by the detected intrinsic heart chamber contraction event of the heart signal.

43. (Previously Presented) The system of claim **22**, wherein the gradual adjustment of a frequency bandwidth comprises a substantially continuous function of the elapsed time.

44. (Previously Presented) The system of claim **22**, wherein the first time period is initiated by the pacing therapy event.

45. (Previously Presented) The system of claim **22**, wherein the first time period is initiated by the detected evoked heart chamber contraction event of the heart signal.

46. (Previously Presented) The system of claim **22**, wherein the first time period is initiated by the detected intrinsic heart chamber contraction event of the heart signal.